

<i>Course title:</i> Roads and railways	<i>Code:</i> ErF7
<i>Field of study:</i> Civil engineering	<i>Year / semester:</i> II
<i>Speciality:</i>	<i>Course:</i> compulsory
<i>Hours / week:</i> Lectures: 0,5 Tutorials: 0 Laboratories: 0 Project / Seminars: 1	<i>Number of credits:</i> 6

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Status of the course in the study program:
Core course for students of Civil Engineering

Course description:
General information about classification and categorization of roads (both car and rail), designing a road in plane and profile, road pavement, drainage, junctions, interchanges and stations.

Teaching outcomes:
The main aim of the course is to acquire basic knowledge about land transport infrastructure and to learn basics of designing a road in plane and profile.

Prerequisites:
Basic knowledge of physics and soil mechanics.

Teaching method:
Lectures (multimedia projector);
Project – students make a preliminary design of a road and a railroad in plane and profile,
Field trips and seminars – students observe certain problems on chosen locations and discuss conclusions;
Literature study – students receive a topic to search for on the internet or in articles given by teacher and to present conclusions.

Assessment method:
Written examination,
Project,
Conclusions from field trips and literature study.

Bibliography:
1. Sysak J.: Podstawy dróg kolejowych, WKiŁ W-wa 1982 (in polish),
2. Basiewicz T., Gołaszewski A., Rudziński L.: Infrastruktura transportu, OWPW, Warszawa 2002 (in polish),
3. Dyr T.: Techniki transportowe, ZPPR Radom 1997 (in polish),
4. Piłat J., Radziszewski P.: Nawierzchnie asfaltowe, WKiŁ, Warszawa 2004 (in polish),
5. Szydło A.: Nawierzchnie drogowe z betonu cementowego, Polski Cement, 2004 (in polish),
6. Merritt F., Kent Loftin M., Ricketts J.: Standards handbook for civil engineers, McGraw-Hill 2004,